Teachers' Digital Agency and Pedagogy during the COVID-19 Crisis in Delhi

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Summary

This article discusses the digital agency of 110 Delhi government schoolteachers during the COVID-19 pandemic. It provides insights on how home/indoor spaces affected the digital pedagogies used across Delhi government schools. Teachers' voices revealed loopholes in the online education system as well as discussing some positive aspects of offline teaching and blended learning.

Keywords

Teachers
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Online learning may not be a solution, but it is a necessity today, I urge all school principals to fully commit to it. The biggest problem with online education was its digital divide between those who have access to technology and those who don't. The Delhi government's remote teaching-learning plan is learning with a human feel.

- Manish Sisodia, Deputy Chief Minister of Delhi also responsible for education, July 2020

In these complex times of the pandemic, the "human dimension" of education becomes more rather than less important. This article provides insights on how home/indoor spaces and technology-aided instruction were affecting the digital pedagogies used across Delhi government schools. It looks at how teachers' engagement with technology has affected their digital agency and epistemic practices. This article draws on issues faced daily by 110 schoolteachers (interviewed over Zoom in July and August 2020) from across Delhi, recording their efforts to connect with students during phases of online teaching at a time of social distancing.

Teacher digital agency

Due to the desire to guarantee an educational experience through standardisation, the emphasis on competition (rather than collaboration and collegiality) that drives education policy is likely to produce worse rather than better educative outcomes for students (Mockler & Groundwater-Smith, 2018). Teachers are key in mitigating the negative impacts of digital education. In India – as in many other countries in early 2020 – it was simply assumed that teachers would be able to transfer their pedagogy online. However, for them to be successful in this new dimension of their job, teachers need to have digital agency. Digital agency provides a conceptual framework for examining the ways that people can engage with technology in a "meaningful and

capital enhancing way", as opposed to merely "functioning with technology" (Pearce & Rice, 2017, p. 2). Digital agency consists of digital competence, digital confidence and digital accountability and is the individual's ability to control and adapt to a digital world. It promotes awareness and interplay between teachers and digital artefacts or technologies (Passey et al., 2018). This article offers insights on the pedagogical issues associated with teachers' engagement in online teaching that affected their digital agency.

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As the pandemic struck India in 2020, government schools were instructed to go online so that teaching and learning could continue during the lockdown. The increased use of digitally based educational activity left many students and teachers in the chasms of the digital divide (access, equity, inclusion). Not all teachers are the well-connected, savvy digital natives that the rhetoric around teachers and technology in India would have us believe. Instead, there was significant variation in the ways that teachers could access, navigate, and use digital artefacts or technologies. Using the Passey et al. framework (Figure 1), this article examines issues faced by the respondents.

Teacher digital accountability: spatial issues

Digital accountability includes responsibility for oneself and others regarding one's digital actions, knowledge of the digital world and its ethical issues, understanding concerns and ensuring security and privacy, and understanding the impact of digital activities (Passey et al., 2018). Being in lockdown and working from home, spatial and temporal relations between teachers and students/families changed. Teachers shared that there are many distractions – the conversations between family members in the same room, family members approaching them for personal work and other issues such as the use of mobile phones impacted their digital accountability. Many teachers described the overall experience as "awkward" or "less accountable". When asked about privacy and space-related issues, a few teachers shared that some parents sometimes "peep in", "record the lectures" or "take pictures". Some of them also shared that their family members sometimes watch them teach, record videos or access students' records. A teacher shared that her digital classroom is in the "pooja [prayer] room with all textbooks and notebooks [taken in] only after my mother-in-law finishes her prayer." Due to spatial issues, teachers noted low levels of personal capacity, acting with low digital responsibility towards themselves and their students.

Teacher digital competence: resources or artefacts

Digital competence is the ability to navigate the digital world or resources safely and effectively (shown in Figure 1 as embracing digital literacy and skills). Digital resources (such as hardware, software and infrastructure) not only

function based on the intentions programmed into them (i.e., "delegated" agency); but they can also be "perceived as having need-based agency" (Rozendaal et al., 2019, p. 25) by their human counterparts (such as teachers). This can be explained as the use of digital technologies in ways that may encompass or enrich their users' capacities, or even let users design novel ways of dealing with tasks that might alter the nature of the activity. The technologies can offer boundaries and structure to activities, shaping the nature and limitations of the activity. These "affordances" and "constraints" can be facilitating and complementary as learners use them "tenaciously", however they do not exist as "absolutes", or "entities with power of their own" (Fisher et al., 2006, pp. 2-3).

In Delhi, there were several sets of digital resources offered by the National Council of Educational Research and Training (NCERT) and the Central Board of Secondary Education (CBSE). The content of government material includes the NCERT-issued Alternative Academic Calendar, videos of teaching, digital editions of textbooks and links to other such material. Teachers shared that the Directorate of Education (DoE) of the Government of Delhi launched a blog targeting primary teachers and students across the 449 Sarvodaya Vidyalayas [Government schools]. The blog uploaded weekly worksheets in various subjects and there are separate blogs for teachers of English and Maths; however, teachers found it hard to engage with these resources online (in digital spaces). Most respondents shared that they are teaching online without proper training and consequently faced problems in using digital tools and the resources offered for teaching (breakout rooms or interactive boards in Google Meet or Zoom). A few respondents shared that they used tools such as WhatsApp to divide their students into groups – the ones owning smartphones and those with cell phones. They used WhatsApp groups and text messages (SMS) to reach out to both groups. One of the respondents shared her experience of using WhatsApp for teaching, saying, "I can now use WhatsApp, share files, making group video calls or a broadcast group." Another participant echoed this, "the WhatsApp features are difficult, and it took time to learn video calls but now I use it to send worksheets and mark the students." When students do not have access to phones, teachers call parents and distribute worksheets or homework for a week. Teachers shared that teaching through digital resources or tools had been reduced to "one-way delivery", with "little or no personal contact", no method of "checking who's getting it and who's not", "no engagement". When asked about current training initiatives on navigating or handling digital tools or resources, a respondent said, "These online trainings just focus on the role of parents, and content and learning outcomes, and ask us to use the E-pathshala and Diksha, but we don't know how to teach." Teachers also perceived involving students and their parents with digital

technologies as an additional challenge. Teacher digital competence thus plays an important role not only in handling the digital resources but also in using them confidently in the enactment of curriculum to meet the different needs of students.

Teacher digital confidence or skills: self-efficacy

Digital confidence is the foundation of digital autonomy, for taking control of social changes arising from uses of digital technology. Digital skills are a core building block for digital confidence and agency (Passey et al., 2018). Digital confidence is complex and multifaceted; it is not just about having skills to use technology and software. It is also about having the confidence to use skill and knowledge levels to navigate other digital domains in a transferable manner in an agentic way (Passey et al., 2018). Many respondents reported teaching using digital resources as "useless", "exhausting" and a "demotivating" experience. Some teachers reported that online teaching requires more effort, autonomy, and skills but that "hardship" is not recognised by the headteachers. The continuous external distractions due to noise from the neighbourhood or interruption by family members during teaching had an adverse effect on the continuity of sessions and teachers' level of confidence. A few teachers were not comfortable and confident to teach some sessions online particularly those involving numerical experiments and personal interaction. Language teachers explained that in face-to-face teaching, language difficulties are mitigated because they use bilingual communication to address students' doubts and queries. While teaching in a real classroom, the physical involvement of sight and sound becomes an effective medium for the teacher to express him/herself confidently and to gauge the level of students' understanding, while the virtual medium lacks this direct contact. Whether it is a play or a poem, the expression of the teacher and voice modulation matters because it adds meaning to the written content. Maths and science teachers expressed a low level of confidence to teach without chalk or experiments in the laboratory. Teachers shared that the instant assessment of students' understanding becomes difficult although there are online tools that can be used after a concept or topic is taught, rather than simultaneously. The respondents mentioned the virtual mode can never compensate for the physical mode of interaction involved in classroom teaching. Teachers thus shift their emphasis on "tricks" or "important questions" to remember for success in an examination rather than conceptual understanding (or critical thinking).

Conclusion

Teachers' voices revealed how they use and handle digital resources or tools to meet the varied needs of their students. Digital infrastructure (including external distraction or family interruption) in Delhi is in tension with the professionalism, accountability, and efficacy of teachers, as well as the overall purpose of education. Unlike the article on digital higher education (Rivett, this issue), students' perceptions of their learning were not noted. Digital agency is reliant on teachers' digital competencies and confidence; however, online teaching in India restricts the prospects for teachers to get the right alignment between the needs (of both students and teachers) and the opportunities provided by digital technologies. Reflections on the epistemological and ontological implications of digitisation and online classroom practices are needed as many countries see this mode as a key part of the future of education.

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